

WHAT IS CLAIMED IS:

1. An attenuation device, comprising:
  - a flexible housing comprising an outer wall and defining a chamber therein; and
  - at least one high vapor pressure media having a vapor pressure approximately equal to the intravesical pressure of the bladder and a permeability of less than 1 ml/day at body temperature through said outer wall.
2. An attenuation device as in Claim 1, wherein said high vapor pressure media comprises heptafluoropropane.
3. An attenuation device as in Claim 1, wherein said high vapor pressure media comprises perfluoroctylbromide.
4. An attenuation device as in Claim 1, wherein said high vapor pressure media comprises perfluorohexane.
5. An attenuation device as in Claim 1, wherein said high vapor pressure media comprises perfluorodecalin.
6. An attenuation device as in Claim 1, wherein said high vapor pressure media comprises tetrafluoroethane.
7. An attenuation device as in Claim 1, wherein said high vapor pressure media comprises sulfur hexafluoride.
8. An attenuation device as in Claim 1, wherein said high vapor pressure media comprises hexafluoroethane.
9. An attenuation device as in Claim 1, wherein said high vapor pressure media comprises perfluoropropane.
10. An attenuation device as in Claim 1, wherein said high vapor pressure media comprises perfluorobutane.
11. An attenuation device as in Claim 1, wherein said high vapor pressure media comprises perfluoropentane.
12. An attenuation device as in Claim 1, wherein said high vapor pressure media comprises perfluoroheptane.

13. An attenuation device as in Claim 1, wherein said high vapor pressure media comprises perfluorooctane.

14. An attenuation device as in Claim 1, wherein said high vapor pressure media comprises octafluoropropane.

15. An attenuation device as in Claim 1, wherein said high vapor pressure media comprises decafluoro-n-butane.

16. An attenuation device as in Claim 1, wherein said high vapor pressure media comprises perfluoroperhydrophenanthrene.

17. An attenuation device as in Claim 1, wherein said high vapor pressure media is a liquid at body temperature.

18. An attenuation device as in claim 17, wherein the density of said high vapor pressure media is greater than that of the urine.

19. An attenuation device as in claim 18, wherein the degree to which said high vapor pressure media counteracts the buoyancy of any gas in the attenuation device is determined by the amount of said high vapor pressure media in the attenuation device.

20. An attenuation device as in claim 19, wherein the reduced buoyancy of the attenuation device results in reduced pressure on the bladder's mucosal surface.

21. An attenuation device as in Claim 1, wherein said high vapor pressure media has a solubility of less than about 0.1 ml per ml of urine at body temperature and pressure.

22. A method of treating a patient, comprising the steps of:

providing a compressible attenuation device which is moveable from a first, introduction configuration to a second, implanted configuration;

introducing the attenuation device into the bladder while in the first configuration;

transforming the attenuation device within the bladder to the second configuration; and

attenuating a pressure change within the bladder by reversibly changing the volume of the attenuation device in response to the pressure change;

wherein the step of transforming the attenuation device to the second configuration comprises introducing within the attenuation device at least one high vapor pressure media.

23. A method as in Claim 22, wherein the step of introducing the attenuation device step comprises transurethrally introducing the attenuation device into the bladder.

24. A method as in Claim 22, wherein the step of introducing the attenuation device step comprises placing the attenuation device percutaneously into the bladder.

25. A method as in Claim 22, wherein said high vapor pressure media has a vapor pressure approximately equal to the intravesical pressure of the bladder and a permeability of less than 1 ml/day at body temperature through the outer wall of the attenuation device.

26. A method as in Claim 22, wherein said high vapor pressure media comprises heptafluoropropane.

27. A method as in Claim 22, wherein said high vapor pressure media comprises perfluoroctylbromide.

28. A method as in Claim 22, wherein said high vapor pressure media comprises perfluorohexane.

29. A method as in Claim 22, wherein said high vapor pressure media comprises perfluorodecalin.

30. A method as in Claim 22, wherein said high vapor pressure media comprises tetrafluoroethane.

31. A method as in Claim 22, wherein said high vapor pressure media comprises sulfur hexafluoride.

32. A method as in Claim 22, wherein said high vapor pressure media comprises hexafluoroethane.

33. A method as in Claim 22, wherein said high vapor pressure media comprises perfluoropropane.

34. A method as in Claim 22, wherein said high vapor pressure media comprises perfluorobutane.

35. A method as in Claim 22, wherein said high vapor pressure media comprises perfluoropentane.

36. A method as in Claim 22, wherein said high vapor pressure media comprises perfluoroheptane.

37. A method as in Claim 22, wherein said high vapor pressure media comprises perfluorooctane.

38. A method as in Claim 22, wherein said high vapor pressure media comprises octafluoropropane.

39. A method as in Claim 22, wherein said high vapor pressure media comprises decafluoro-n-butane.

40. A method as in Claim 22, wherein said high vapor pressure media comprises perfluoroperhydrophenanthrene.

41. A method as in Claim 22, wherein said high vapor pressure media is a liquid at body temperature.

42. A method as in Claim 41, wherein the density of said high vapor pressure media is greater than that of the urine.

43. A method as in Claim 42, wherein the degree to which said high vapor pressure media counteracts the buoyancy of any gas in the attenuation device is determined by the amount of said high vapor pressure media in the attenuation device.

44. A method as in Claim 43, wherein the reduced buoyancy of the attenuation device results in reduced pressure on the bladder's mucosal surface.

45. A method as in Claim 22, wherein said high vapor pressure media has a solubility of less than about 0.1 ml per ml of urine at body temperature and pressure.